Message

From: Weissbart, Erich [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E361D2F1F04641E49CA63C81A2E2F4EE-EWEISSBA]

Sent: 3/9/2017 3:42:40 PM **To**: Kylie.McCord@CH2M.com

Subject: RE: Institute GW

I want you to know before the call, and I am currently reviewing the plan you sent me this morning, that I have serious concerns over TI at Tank 1010. I tell you this because I would like it if Jerome didn't over react to my skepticism. It is not productive when Jerome loses his temper. So you can pave the way and be prepared because I would like to know why CH2M thinks the injection didn't work. My impression is there was little positive effect based on before and after figures in the appendix. Was a bench scale performed? How was the mass of oxidant calculated, etc. Secondarily, and one of the reasons I am not seeing TI, are the highly elevated concentrations of benzene in the sand layers immediately adjacent to the river. How confident is CH2M that the river is not impacted? If modeling was performed, and I generally don't subscribe to models as they relate to surface water discharge, what would they conclude?

Understand that UCC/Dow would like to do nothing at Tank 1010 based on a qualitative elimination of a multitude of remedies and the failure of one while soil and groundwater remain highly impacted and must discharge to the river based on proximity. Therefore based on the results of the pore water evaluation there is no risk.

How is it that hundreds of ppm of benzene in groundwater only reach the river at low ppb's? Flux? Degradation? Dilution?

There may be answers to my questions. I'm certainly hoping so. An answer is not that Bill Wentworth approved the work.

I'm still trying to get a handle on the rest of the site. Wasn't an IM implemented at the other area with significantly contaminated groundwater? Are there plans and reports for that area? I'm not in a hurry to receive them but eventually.......

Finally, recognize that Luis did not give this to me just to finish Bill's job. That may have been part of it but Luis trusts that I know what I am doing. I try to be sensitive to the fact that a lot of work took place under someone else's oversight and I don't want to make waves unless I have to. I'm sure you will all convince me on Monday that my skepticism is unfounded.

Erich Weissbart, P.G. Land and Chemicals Division USEPA Region III 701 Mapes Road Fort Meade, MD 20755 (410) 305-2779 weissbart.erich@epa.gov

From: Kylie.McCord@CH2M.com [mailto:Kylie.McCord@CH2M.com]

Sent: Thursday, March 09, 2017 9:27 AM

To: Weissbart, Erich < Weissbart. Erich@epa.gov > **Cc:** cibrikje@dow.com; Gary.Dyke@CH2M.com

Subject: RE: Institute GW

Erich,

Attached is the original Performance Monitoring Program plan that was prepared for the Institute site in 2011 and approved by EPA. This has more details regarding the development of the Thiessen network that I thought would be helpful to you — the plan I sent you previously was the 2014 update where we made some modifications and did not discuss how the network was originally developed. We can discuss on the call on Monday.

Thanks,

Kylie

From: Weissbart, Erich [mailto:Weissbart.Erich@epa.gov]

Sent: Thursday, March 02, 2017 7:48 AM

To: McCord, Kylie/ATL < Kylie.McCord@CH2M.com>

Cc: cibrikje@dow.com; Dyke, Gary/DET < Gary.Dyke@CH2M.com>

Subject: RE: Institute GW [EXTERNAL]

Thanks for sending the plan. I forwarded the priorities to Ruth and Luis. I'll take a look at the plan, which I assume Bill W. approved, and suggest tweaks as we move into the final remedy for WVDEP. As the reports from CH2M are similar, I would expect to have similar comments. As an annual reporting of site conditions the reports have to include certain items. Obviously less important during this stage of the process.

Erich Weissbart, P.G. Land and Chemicals Division USEPA Region III 701 Mapes Road Fort Meade, MD 20755 (410) 305-2779 weissbart.erich@epa.gov

From: Kylie.McCord@CH2M.com [mailto:Kylie.McCord@CH2M.com]

Sent: Wednesday, March 01, 2017 8:15 PM **To:** Weissbart, Erich < Weissbart.Erich@epa.gov > Cc: cibrikje@dow.com; Gary.Dyke@CH2M.com

Subject: RE: Institute GW

Erich,

Below is the order of review requested for the Institute risk assessment review documents that has previously been requested and was updated in the July 2016 partnering meeting (and included with the meeting notes). Let me know if we should send this directly to Luis.

Document	Site	Urgency (High, Medium, Low)	Actual or Proposed Delivery Date	Priority	Potential Schedule or Impacts on Plans
Pore Water Evaluation (including Groundwater to Surface Water Partitioning Evaluation)	Institute	High	Submitted 10/24/13		Results from pore water investigation at Tank 1010 and HPH Areas; Supports Tank 1010 remedy evaluation.

Metals in Groundwater to Surface Water and Sediment Risk Evaluation	Institute	High	Submitted 2/20/2014	2	Background metals in groundwater evaluation and metals sediment sampling results/risk evaluation; Supports WWTP remedy evaluation. WWTP Remedial Approach Report to be submitted during 3rd Quarter 2014.
Updated Human Health Risk Assessment	Institute	High	Submitted 7/25/16	3	Includes evaluation of both surface (previously submitted) and subsurface soil data; supports completion of the CMP.
Updated Vapor Intrusion Risk Assessment Report - BCS Institute Facility	Institute	High	Submitted 4/25/2014	4	Building inventory update completed.

I have also attached a copy of the workplan for the PMP groundwater sampling at the Institute plant that explains the evaluation procedures for your use. We will take a look at the PTO comments and look to see where we can make changes to improve the 2016 PMP document.

Thanks,

Kylie

From: Weissbart, Erich [mailto:Weissbart.Erich@epa.gov]

Sent: Wednesday, March 01, 2017 6:39 AM

To: McCord, Kylie/ATL < Kylie.McCord@CH2M.com>

Cc: cibrikje@dow.com

Subject: RE: Institute GW [EXTERNAL]

A couple of things. First you were going to send Ruth an order of priority for the documents you sent her. I suggest you do so. Second, I have been reviewing the groundwater report. You wrote me this year's report is in preparation. I suggest you look at the comments I have sent for the PTO facility and try to incorporate some of them. The main criticism of this report is there is not a single figure that depicts where contamination is located and there is no description in the text. Other reports include a large figure with embedded tables so one can see which wells contain exceeding contaminants. Other reports, which I prefer, contour certain important contaminants – I don't know which would work best for this site. It appears to me there are two distinct areas of contamination but I am having to dig to confirm that – and recall I don't have a paper copy of the report. Also I believe I recollect from the annual meeting that the two areas have undergone or are undergoing remediation. Last, the evaluation of mass degradation using polygons is an interesting approach but the fact is the details should be included in an appendix, just like the 1998 reference document. At the end of the day someone who picks up this report should be able to duplicate any evaluation you have undertaken.

Jerome, in my opinion, you should give Luis a call at some point to discuss why and how the risk assessment reports fell through the cracks and impress upon him the fact the facility is poised to select a final remedy. I kind of know her workload but Ruth now works directly for Luis, as of January 2017, and the risk documents need to be moved to the head of her queue.

Erich Weissbart, P.G. Land and Chemicals Division USEPA Region III 701 Mapes Road Fort Meade, MD 20755 (410) 305-2779 weissbart.erich@epa.gov

From: Kylie.McCord@CH2M.com [mailto:Kylie.McCord@CH2M.com]

Sent: Monday, February 27, 2017 3:15 PM **To:** Weissbart, Erich < Weissbart. Erich@epa.gov >

Cc: cibrikje@dow.com
Subject: RE: Institute GW

Erich,

Attached please find a copy of the most recent groundwater sampling report (2015 PMP), the statement of basis support document, and the CMP in word. The 2016 groundwater sampling report is in prep (sampled November/December last year). I will send you the Tank 1010 document separately.

Thanks,

Kylie

From: Weissbart, Erich [mailto:Weissbart.Erich@epa.gov]

Sent: Thursday, February 23, 2017 3:59 PM

To: McCord, Kylie/ATL < Kylie.McCord@CH2M.com>

Cc: cibrikje@dow.com

Subject: Re: Institute GW [EXTERNAL]

Thanks. Also, this CMP is pretty straight forward so far. If you send me the other document you sent to Bill, in Word, I could probably start putting a SB together for WVDEP. I may need the CMP, at least the report, in Word also, but I'll figure that out down the road. No huge hurry. I am just about done today and off until Monday. Finally, and looking ahead, I read about TI in the executive summary table for Tank 1010 area but there is not much in the text. I thought there would be a TI demonstration similar to last summer's meeting; on the other hand if MNA is degrading organic contamination at a healthy rate.......

Erich Weissbart, P.G. Remedial Project Manager Land and Chemicals Division US EPA Region III 701 Mapes Road, Fort Meade, Maryland 20755 410 305-2779 weissbart.erich@epa.gov

From: Kylie.McCord@CH2M.com < Kylie.McCord@CH2M.com>

Sent: Thursday, February 23, 2017 3:46 PM

To: Weissbart, Erich
Cc: cibrikje@dow.com
Subject: RE: Institute GW

Erich – I will get you a copy of the report electronically as well as the permit per your earlier email.

K

From: Weissbart, Erich [mailto:Weissbart.Erich@epa.gov]

Sent: Thursday, February 23, 2017 3:46 PM

To: McCord, Kylie/ATL < Kylie.McCord@CH2M.com>

Cc: Cibrik, Jerome (JE) <<u>cibrikje@dow.com</u>>

Subject: Institute GW [EXTERNAL]

Please send me the last groundwater monitoring report for the Institute site, electronically if you can. I have reviewed Appendix B but it doesn't provide a complete picture today, meaning the latest results site-wide at one time.

Erich Weissbart, P.G.
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